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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/954,657

09/18/2001

Andreas Kellner

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05/06/2004

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

VO, HUYEN X

ART UNIT

PAPER NUMBER

2655

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/954,657

Applicant(s)

KELLNER ET AL.

Examiner

Huyen Vo

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to because there are missing verbal labels on the drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, and 5-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Junqua et al. (US Patent No. 6415257).

1. Regarding claims 1 and 7, Junqua et al. disclose a dialog system and a method of operating a dialog system (figure 3) comprising processing units for
automatic speech recognition (12 of figure 1),
natural language understanding (24 of figure 1),

defining system outputs in dependence on information derived from user inputs (col. 2, ln. 28-31),

generating acoustic and/or visual system outputs (col. 10 ln. 65 to col. 11, ln. 3 and/or element 36 of figure 1),

deriving user models (col. 2, ln. 36-42, input speech signal is processed and parameterized for used in the speech recognition process).

while the user models contain details about the style of speech of user inputs and/or details about interactions in dialogs between users and the dialog system and adaptation of contents and/or form of system outputs is provided in dependence on the user models (col. 2, ln. 54 to col. 3, ln. 26 or referring to figure 2, the user's profile includes a log that keeps track of user's view preferences and user's speech patterns).

2. Regarding claim 3, Junqua et al. further disclose a dialog system characterized in that the user models contain estimates for the reliability of recognition results derived from user inputs (col. 7, ln. 1-32, the score associated with each candidate represents the reliability of each recognized candidate).

3. Regarding claim 5, Junqua et al. further disclose a dialog system characterized in that fixed models of user stereotypes are used for forming the user models (col. 8, ln. 8-26, what claimed above is a speaker adaptation process).

4. Regarding claim 6, Junqua et al. further disclose a dialog system characterized in that user models are used which are continuously updated based on inputs of the respective user (col. 3, ln. 1-27, the system includes a usage log recording user's everyday uses of the system).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junqua et al. (US Patent No. 6415257) in view of Larsen (IEEE Publication).

5. Regarding claim 2, Junqua et al. further disclose a dialog system characterized in that in addition to the input modality to use user inputs by means of speech, at least a further input modality is provided (col. 3, ln. 35-44). Bennett et al. do not disclose a dialog system characterized in that the user models contain details about the respective use of the various input modalities by the user.

However, Larsen teaches a bi-modal application used in a dialog system, where a DTMF input mode is used if repeated recognition errors occur in the speech recognition mode (referring to APPLICATION SECTION on pages 66-67). The

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advantage of using the teaching of Larsen in Junqua et al. is to enable the system to take appropriate actions to process the input signal to achieve high accuracy.

Since Junqua et al. and Larsen are analogous art because they are from the same field of endeavors it would have been obvious to one of ordinary skill in the art at the time of invention to modify Junqua et al. by incorporating the teaching of Larsen in order to enable the system to take appropriate actions to process the input signal to achieve high accuracy.

The modified Junqua et al. still fail to disclose a dialog system characterized in that the user models contain details about the respective use of the various input modalities by the user. However, it would have been obvious to one of ordinary skill in the art at the time of invention to readily realize that both DTMF and speech input modes, as taught by Larsen, are different and both are represented by two distinct signals. Therefore, the system would have distinguished and process these two signals differently in order to enhance the system's efficiency and reliability.

- DTO* 6. ^{Junqua} Regarding claim 4, the modified ~~Bennett~~ et al. do not disclose a dialog system characterized in that in dependence on the estimates, system responses are generated which prompt the respective user to use such input modalities for which high estimate values were determined and/or which prevent the respective user from using input modalities for which low reliability values were determined.

However, Larsen teaches a dialog system characterized in that in dependence on the estimates, system responses are generated which prompt the respective user to

use such input modalities for which high estimate values were determined and/or which prevent the respective user from using input modalities for which low reliability values were determined (referring to APPLICATION SECTION on pages 66-67). The advantage of using the teaching of Larsen in the modified ^{Tunqua}~~Bennett~~ et al. is to allow the system to switch to a different input mode to achieve high recognition accuracy.

Since the modified ^{Tunqua}~~Bennett~~ et al. and Larsen are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to further modify ^{Tunqua}~~Bennett~~ et al. by incorporating the teaching of Larsen in order to allow the system to switch to a different input mode to achieve high recognition accuracy.

Conclusion

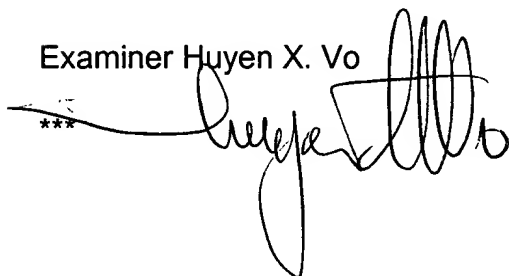
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bennett et al. (US Patent No. 6633846) teach a distributed speech recognition system having a natural language understanding unit used to process and respond to the input speech that is considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen Vo whose telephone number is 703-305-8665. The examiner can normally be reached on M-F, 9-5:30.

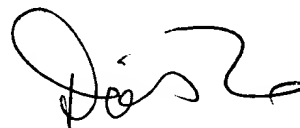
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Huyen X. Vo



April 21, 2004



DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600